

What is claimed is:

1. An information recording medium being recorded
information relating to adjustment of the recording
conditions and being based on a comparison result between
5 asymmetry values which are obtained from signal recorded in
said information recording medium under at least two or more
recording conditions, as a readable information at a
predetermined position of said information recording medium.

2. The information recording medium according to
10 claim 1, wherein a first asymmetry value at a first
recording power in which jitter becomes minimum is compared
with a second asymmetry value at a second recording power of
multiplication of said first recording power by coefficient
of 0.85, and said information relating to adjustment of said
15 recording conditions generated on the basis of the comparison
result is recorded as a readable information at a
predetermined position of said information recording medium.

3. The information recording medium according to
claim 2, wherein if a difference between said first
20 asymmetry value and said second asymmetry value is 0.05 or
more, information indicating that adjustment of the recording
conditions using the asymmetry values are possible is
disposed therein, while if a difference between said first
asymmetry value and said second asymmetry value is less than
25 0.05, information indicating that adjustment of the recording
conditions using the asymmetry values are impossible is
recorded as a readable information at a predetermined
position of said information recording medium.

4. An information recording medium being an information recording medium having a predetermined portion where a flag which indicates whether an asymmetry value is available for OPC is stored, using a first recording power 5 in which a jitter becomes minimum, a first asymmetry value of said recording medium at said first recording power is measured, a second asymmetry value of said recording medium at a second recording power obtained by multiplication of said first recording power by coefficient of 0.85 is measured, and said flag generated using said measured first 10 and second asymmetry values is recorded at said predetermined portion.

5. The information recording medium according to claim 4, wherein a flag indicating whether or not said 15 asymmetry value is available for OPC indicates that if a difference between said first asymmetry value and said second asymmetry value is 0.05 or more, said asymmetry value is available for OPC, while if a difference between said first asymmetry value and said second asymmetry value is less than 0.05, said asymmetry value is not available for 20 OPC.

6. An information recording medium on which information is recorded by means of irradiation with light characterized in that a flag indicating whether or not an 25 intensity of light for recording can be adjusted on the basis of a correlation between an asymmetry value and the intensity of light for recording on the occasion of recording of information is recorded.

7. The information recording medium according to
claim 6, wherein said flag indicates that said adjustment is
possible if a difference between an asymmetry value of a
signal recorded by light at one intensity and an asymmetry
5 value of a signal recorded by light at the other intensity
is equal to or greater than a reference value, and on the
other hand, said flag indicates that said adjustment is
impossible if said difference is less than said reference
value.

10 8. The information recording medium according to
claim 7, wherein said reference value is 0.05.

9. The information recording medium according to
claim 7, wherein said one intensity corresponds to an
intensity at which a jitter of signal recorded by means of
15 the light at said one intensity is minimum, and said other
intensity is 0.85 times as high as said one intensity.

10. The information recording medium according to
claim 8, wherein said one intensity corresponds to an
intensity at which a jitter of signal recorded by means of
20 the light at said one intensity is minimum, and said other
intensity is 0.85 times as high as said one intensity.

11. The information recording medium according to
claim 6, wherein information can be recorded at a plurality
of levels of recording speeds, and said flag is set for the
25 case where information is to be recorded at at least one
level of recording speed.

12. The information recording medium according to
claim 11, wherein said plurality of levels of recording

speeds include one recording speed and a double recording speed that is twice higher than said one recording speed, and said flag is set for at least said one recording speed and said double recording speed.

5 13. The information recording medium according to claim 10, wherein information can be recorded at a plurality of levels of recording speeds, and said flag is set for the case where information is to be recorded at at least one level of recording speed.

10 14. The information recording medium according to claim 13, wherein said plurality of levels of recording speeds include one recording speed and a double recording speed that is twice higher than said one recording speed, and said flag is set for at least said one recording speed
15 and said double recording speed.

15. The information recording medium according to claim 6, wherein said medium is a DVD-RW.

16. A method of generating a flag comprising the steps of:

20 measuring a first asymmetry value at a first recording power at which a jitter becomes minimum;
 measuring a second asymmetry value at a second recording power which is obtained by multiplication of said first recording power by a coefficient of 0.85; and
25 generating a flag indicating whether or not said asymmetry value is available for OPC by using said first asymmetry value and said second asymmetry value.

17. The method of generating a flag according to

claim 16, wherein in the step of generating the flag, generating a flag indicating that said asymmetry value is available for OPC when a difference between said first asymmetry value and said second asymmetry value is 0.05 or 5 more and generating a flag indicating that said asymmetry value is not available for OPC when a difference between said first asymmetry value and said second asymmetry value is less than 0.05.

18. A method of producing an information recording medium on which information is recorded by means of 10 irradiation with light comprising the steps of:

producing a confirming recording medium which to measure asymmetry values and confirm whether or not an intensity of light for recording can be adjusted on the 15 basis of a correlation between an asymmetry value and said intensity of light for recording, when the information is recorded;

confirming whether or not said intensity of light for recording can be adjusted on the basis of a correlation 20 between said asymmetry value and said intensity of light for recording on the occasion of recording of information by using said confirming recording medium; and

producing an information recording medium on which a flag indicating the confirmation result is recorded.

25 19. The method of producing an information recording medium according to claim 18,

wherein said confirming step comprising the steps of: recording one signal by means of light at one

intensity on said confirming information recording medium, while recording the other signal by means of light at the other intensity on the medium;

5 obtaining one asymmetry value based on said one signal, while obtaining the other asymmetry value based on said other signal;

obtaining a difference between said one asymmetry value and said other asymmetry value; and
comparing said difference with a reference
10 value, and

wherein said flag indicates that said adjustment is possible when said difference is equal to or greater than said reference value, and said flag indicates that said adjustment is impossible when said difference is less than
15 said reference value.

20. The method of producing an information recording medium according to claim 19, wherein said reference value is 0.05.

21. The method of producing an information recording medium according to claim 19, wherein said one intensity corresponds to an intensity at which a jitter of signal recorded by means of the light at said one intensity is minimum, and said other intensity is 0.85 times as high as said one intensity.

25 22. The method of producing an information recording medium according to claim 20, wherein said one intensity corresponds to an intensity at which a jitter of signal recorded by means of the light at said one intensity is

minimum, and said other intensity is 0.85 times as high as said one intensity.

23. The method of producing an information recording medium according to claim 18, wherein said information recording medium is a medium on which information can be recorded at a plurality of levels of recording speeds, and said flag is set for the case of recording the information at at least one level of recording speed.

24. The method of producing an information recording medium according to claim 23, wherein said plurality of levels of recording speeds include one recording speed and a double recording speed that is twice higher than said one recording speed, and said flag is set for at least said one recording speed and said double recording speed.

25. The method of producing an information recording medium according to claim 22, wherein said information recording medium is a medium on which information can be recorded at a plurality of levels of recording speeds, and said flag is set for the case of recording the information at at least one level of recording speed.

26. The method of producing for an information recording medium according to claim 25, wherein said plurality of levels of recording speeds include one recording speed and a double recording speed that is twice higher than said one recording speed, and said flag is set for at least said one recording speed and said double recording speed.

27. The method of producing an information recording

medium according to claim 18, wherein said information recording medium is a DVD-RW.

28. A method of adjusting recording conditions of an information recording medium comprising the steps of:

5 comparing asymmetry values, which are obtained by a signal recorded in said information recording medium, under at least two or more recording conditions; and

deciding an adjusting method of recording conditions on the basis of the comparison result.

10 29. The method of adjusting recording conditions of an information recording medium according to claim 28, wherein a first asymmetry value at a first recording power at which a jitter becomes minimum is compared with a second asymmetry value at a second recording power obtained by
15 multiplication of said first recording power by a coefficient of 0.85.

30. The method of adjusting recording conditions of an information recording medium according to claim 29, wherein if difference between said first asymmetry value and
20 said second asymmetry value is 0.05 or more, adjustment of the recording conditions using the asymmetry value is carried out while if difference between said first asymmetry value and said second asymmetry value is less than 0.05, adjustment of the recording condition using the asymmetry
25 value is not carried out.

31. A method of adjusting recording conditions of an information recording medium comprising the steps of:
measuring a first asymmetry value at a first

recording power at which a jitter becomes minimum;
measuring a second asymmetry value at a second
recording power obtained by multiplication of said first
recording power by a coefficient of 0.85;

5 measuring a difference between said first asymmetry
value and said second asymmetry value; and
determining that if a difference between said first
asymmetry value and said second asymmetry value is 0.05 or
more, said asymmetry value is available for OPC while if a
10 difference between said first asymmetry value and said
second asymmetry value is less than 0.05, said asymmetry
value is not available for OPC.

32. A method of adjusting recording conditions of an
information recording medium comprising the steps of:

15 measuring a first asymmetry value at a first
recording power at which a jitter becomes minimum;
measuring a second asymmetry value at a second
recording power obtained by multiplication of said first
recording power by a coefficient of 0.85;

20 generating a flag indicating whether or not an
asymmetry value is available for OPC by using said first
asymmetry value and said second asymmetry value; and
adjusting recording conditions based on said
generated flag.

25 33. The method of adjusting recording conditions of an
information recording medium according to claim 32, wherein
said flag indicating whether or not said asymmetry value is
available for OPC indicates that if a difference between

said first asymmetry value and said second asymmetry value
is 0.05 or more, said asymmetry value is available for OPC
while if a difference between said first asymmetry value and
said second asymmetry value is less than 0.05, said
5 asymmetry value is not available for OPC.

34. A method of recording for an information
recording medium on which information is recorded by means
of irradiation with light, and a flag indicating whether or
not an intensity of light for recording can be adjusted on
10 the basis of a correlation between an asymmetry value and
said intensity of light for recording on the occasion of
recording of the information is recorded, comprising the
steps of:

reading out said flag from said information recording
15 medium, and if said flag indicates that said adjustment is
possible, the adjustment based on said correlation is
carried out for said intensity of light for recording, and
if said flag indicates that said adjustment is impossible,
the adjustment based on said correlation is not carried out
20 for said intensity of light for recording; and

recording information by irradiating said information
recording medium with said light for recording.

35. The method of recording for an information
recording medium according to claim 34, wherein in said
25 adjusting step, said intensity of light for recording is
adjusted on the basis of an amplitude of a reproduced signal
of the information recorded on said information recording
medium when said flag indicates that said adjustment is

impossible.

36. The method of recording for an information recording medium according to claim 34, wherein said flag is set in such a manner that one signal is recorded on said 5 information recording medium by means of light at one intensity and the other signal is recorded on said medium by means of light at the other intensity to obtain one asymmetry value based on said one signal and the other asymmetry value based on said other signal and to thereby 10 obtain a difference between said one asymmetry value and said other asymmetry value, and the difference is compared with a reference value so that said flag indicates that the adjustment is possible when said difference is equal to or greater than said reference value and said flag indicates 15 that the adjustment is impossible when said difference is less than said reference value.

37. The method of recording for an information recording medium according to claim 36, wherein said reference value is 0.05.

20 38. The method of recording for an information recording medium according to claim 36, wherein said one intensity corresponds to an intensity at which a jitter of signal recorded by means of the light at said one intensity is minimum, and said other intensity is 0.85 times as high 25 as said one intensity.

39. The method of recording for an information recording medium according to claim 37, wherein said one intensity corresponds to an intensity at which a jitter of

signal recorded by means of the light at said one intensity is minimum, and said other intensity is 0.85 times as high as said one intensity.

40. The method of recording for an information
5 recording medium according to claim 34, wherein an asymmetry value when the jitter becomes minimum is recorded on said information recording medium, and said adjustment of said intensity of light for recording based on said correlation between said asymmetry value and said intensity of light for
10 recording is adjustment of said intensity of light for recording so that the asymmetry value becomes said asymmetry value when the jitter becomes a minimum value.

41. The method of recording for an information recording medium according to claim 34, wherein said
15 adjustment of said intensity of light for recording based on said correlation between said asymmetry value and said intensity of light for recording is adjustment of said intensity of light for recording so that a first asymmetry value obtained based on a first period signal and a second
20 period signal having a longer period than that of the first period signal is identical with a second asymmetry value obtained based on a third period signal and a fourth period signal having a longer period than that of the third period signal.

25 42. The method of recording for an information recording medium according to claim 34, wherein said information recording medium is a medium on which information can be recorded at a plurality of levels of

recording speeds, and said flag is set for the case where information is recorded at at least one level of recording speed.

43. The method of recording for an information
5 recording medium according to claim 42, wherein said plurality of levels of recording speeds include one recording speed and a double recording speed that is twice higher than said one recording speed, and said flag is set for at least said one recording speed and said double
10 recording speed.

44. The method of recording for an information recording medium according to claim 39, wherein said information recording medium is a medium on which information can be recorded at a plurality of levels of
15 recording speeds, and said flag is set for the case where information is recorded at at least one level of recording speed.

45. The method of recording for an information recording medium according to claim 44, wherein said plurality of levels of recording speeds include one recording speed and a double recording speed that is twice higher than said one recording speed, and said flag is set for at least said one recording speed and said double
20 recording speed.

25 46. The method of recording for an information recording medium according to claim 34, wherein said information recording medium is a DVD-RW.

47. An information recording device for recording

information on an information recording medium by irradiating said information recording medium with light, wherein a flag is recorded on said information recording medium, the flag indicating whether or not an intensity of
5 light for recording can be adjusted on the basis of a correlation between an asymmetry value and said intensity of light for recording on the occasion of recording of the information on said medium, comprising:

10 a reading section for reading out said flag from said information recording medium;

an adjustment section for adjusting said intensity of light for recording on the basis of said correlation between an asymmetry value of said information recording medium and said intensity of light for recording;

15 a selecting section for activating said adjustment section when said flag having been read out by said reading section indicates that the adjustment is possible; and

20 a recording section for recording information on said information recording medium by irradiating said information recording medium with said light for recording.

48. The information recording device according to claim 47, further comprising the other adjustment section for adjusting said intensity of light for recording on the basis of an amplitude of a reproduced signal of the
25 information recorded on said information recording medium, which is activated by said selecting section when said flag indicates that said adjustment is impossible.

49. An information recording device for recording

information on an information recording medium by irradiating the information recording medium with light, comprising:

an adjustment section for adjusting said intensity of
5 light for recording on the basis of a correlation between an asymmetry value of said information recording medium and an intensity of light for recording;

a signal recording section for recording one signal on said information recording medium by means of light at
10 one intensity, while recording the other signal on said information recording medium by means of light at the other intensity;

a selecting section for determining an asymmetry value of said one signal and an asymmetry value of said
15 other signal and calculating a difference between said asymmetry values, and for activating said adjustment section when said difference is equal to or greater than a reference value; and

a recording section for recording information on said
20 information recording medium by irradiating said information recording medium with light.

50. The information recording device according to claim 49, further comprising the other adjustment section for adjusting said intensity of light for recording on the
25 basis of an amplitude of a reproduced signal of the information recorded on said information recording medium, which is activated by said selecting section when said difference is less than said reference value.

51. The information recording device according to
claim 49, wherein said reference value is 0.05.

52. The information recording device according to
claim 50, wherein said one intensity corresponds to an
5 intensity at which a jitter of signal recorded by means of
the light at said one intensity is minimum, and said other
intensity is 0.85 times as high as said one intensity.

53. The information recording device according to
claim 51, wherein said one intensity corresponds to an
10 intensity at which a jitter of signal recorded by means of
the light at said one intensity is minimum, and said other
intensity is 0.85 times as high as said one intensity.

54. The information recording device according to
claim 47, wherein said information recording medium is a
15 DVD-RW.